

ZHUFAN GU

Santa Clara, CA | guzhufan@gmail.com | [linkedin.com/in/zhufan-gu](https://www.linkedin.com/in/zhufan-gu) | 408-568-2978

EDUCATION

Santa Clara University, Santa Clara, CA

Sep 2022 – Dec 2024

- Master of Science in **Computer Science and Engineering** (GPA 3.36)
- Relevant Coursework: Data Structures & Algorithms, Artificial Intelligence, Distributed Systems, Operating Systems

University of St. Andrews, St. Andrews, Fife, UK

Sep 2019 – Dec 2020

- Master of Science in **Human Computer Interaction** (Merit)
- Relevant Coursework: Object Oriented Programming, Information Visualization, User-Centered Interaction Design

Zhejiang Yuexiu University of Foreign Languages, Zhejiang, China

Sep 2013 – Jun 2018

- Bachelor of Arts in **Business English** (GPA 3.5)

WORK EXPERIENCE

CodeDay Labs

Jun 2024 – Aug 2024

Software Engineer Intern

- Collaborated with **Carnegie Mellon University** mentor on project *Algebraic Simplification Cesar*, optimizing algebraic expressions using advanced symbolic computation in computer algebra systems.
- Developed **unit tests** in the **Rust** codebase to ensure correctness of simplification functions. ([pull request](#))
- Implemented **Python bindings** with **PyO3**, enabling Rust functions to be utilized for more complex and large-scale computations in Python. ([pull request](#))
- Mastered a new technology stack including **Rust**, **Maturin**, **Cargo**, **Z3**, and **EGG** within 4 weeks and constructed a [system diagram](#) to visualize the control flow.

OPEN SOURCE EXPERIENCE

CTI-CodeDay

Sep 2023 – Dec 2023

Software Engineer Micro-Internship

- Enhanced accessibility for the open-source project *React-PDF* (9.2k GitHub stars) from 96 to 100 by investigating aria-labels for PDF page annotation links, addressing issues identified by Google Lighthouse. ([issue #1424](#)).
- Executed automated tests using **Mocha**, **Docker**, and **PostgreSQL** data, ensuring precision and reliability in the open-source project *Open Energy Dashboard's* energy data systems. ([pull request](#))

ACADEMIC PROJECTS

Chatbot Application | Web Development

Nov 2023 – Jan 2024

- Created an AI Chatbot using GPT-4 and OpenAI API, showcasing skills in natural language processing and AI integration, with a focus on user interaction and response generation.
- Implemented full-stack development for chatbot with **FastAPI** and Python, incorporating **DALL-E** for image generation and deploying the application **AWS**, demonstrating end-to-end application development and deployment skills.

StudySphere | Full-stack Development

Sep 2023 – Nov 2023

- Constructed a full-stack, real-time communication application deploying **MERN** stack (**MongoDB**, **Express.js**, **React**, **Node.js**), **WebRTC**, and **Socket.IO**, demonstrating expertise in building scalable, interactive web applications.
- Enhanced "StudySphere" with group video calls, real-time chat, and secure user authentication (**JWT** Token), focusing on a user-friendly interface for collaborative studying and real-time communication in a virtual learning environment.

EXTRACURRICULAR ACTIVITIES

AWE U.S. | Santa Clara

May 2023 – Jun 2023

- Assisted at AWE events, handling guest check-in, badge printing, lanyard distribution, and attendee inquiries for a smooth experience.

SKILLS

Languages: Python, TypeScript, JavaScript, Java, C/C++, Rust, HTML, CSS

Applications: Node.js, MongoDB, Docker, Axure, Balsamiq, Blender, Unreal Engine, Tableau

HONORS AND REWARDS

- Excellent Graduates of Zhejiang Province
- Zhejiang Government Scholarship (Top 3%)